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| Course: | SOIL FERTILITY AND FERTILIZERS |
| Course id:3ОВВ3О09 |
| Number of ECTS: 6 |
| Teacher: | Prof. dr Darinka M. Bogdanović, mr Ranko R. Čabilovski |
| Course status | Mandatory |
| Number of active teaching classes (weekly) |
| Lectures:3 | Practical classes:2 | Other teaching types: | Study research work: | Other classes: |
| Precondition courses | None/navesti ako ima |
| 1. Educational goal

The acquisition of basic knowledge of soil fertility and fertilizer application. |
| 1. Educational outcomes

The student is qualified for further education through master's and PhD studies. Students will also be able apply the acquired knowledge, about soil fertility and fertilizer application, in agricultural practice.  |
| 1. Course content

***Theoretical instruction***Subject *SOIL FERTILITY AND FERTILIZERS* consists of several thematic units: Nitrogen in the soil. Phosphorus in the soil. Potassium in the soil. Other essential microelements. Useful elements. Microelements in the soil. Heavy metals in the soil. Soil properties and processes related to plant nutrition and fertilizer application. Fertilizers. Nitrogen fertilizers. Phosphorus fertilizers. Potassium fertilizers. The complex fertilizers.Organo-mineral fertilizers. Liquid fertilizers. Fertilizers with pesticides and trace elements. Organic fertilizers. Principles of fertilization. The control system of soil fertility and fertilizer application ***Practical instruction***Laboratory exercise: Soil fertility. Determining the need for fertilization. The system of soil fertility control and fertilizer application. Soil sampling. Determination of total nitrogen in the soil. Determination of mineral nitrogen in the soil. N-min method. Phosphorus in the soil. Potassium in the soil. Trace elements in soil. Field trials. Basic physical and chemical properties of fertilizers. Regulation of fertilizers and soil improvers. Principles for determining the dose of fertilizer application.***Field exercises:***Visit the experimental field of Institute of field and vegetable crops. . Visit the factory of mineral fertilizers. |
| 1. Teaching methods

Lectures and Practical classes |
| Knowledge evaluation (maximum 100 points) |
| Pre-examination obligations | Mandatory | Points | Final exam (izabrati) | Mandatory | Points |
| Lecture attendance | Yes | 0 | *Oral part of the exam* | Yes | 30-70 |
| Tests | Yes | 30+30=60 |  |
| Exercise attendance | Yes | 0 |
| Colloquium | Yes/No | 6-10 |
| Literature  |
| Ord. | Author | Title | Publisher | Year |
|  | Ubavić, M., Bogdanović, D.: | Agrohemija | Poljoprivredni fakultet, Novi Sad | 2001. |
|  | Jakovljević, M., Pantović, M. | Hemija zemljišta i vode. | Poljoprivredni fakultet, Zemun, Beograd | 1991. |
|  | Ubavić, M., Bogdanović, D. | Praktikum iz agrohemija | Poljoprivredni fakultet, Novi Sad | 1995. |
|  | Westerman R.L. | Soil testing and plant analysis, SSSA Book series 3 | Madison, USA,  | 1990 |

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| Znak univerziteta | UNIVERSITY OF NOVI SADFACULTY OF AGRICULTURE 21000 NOVI SAD, TRG DOSITEJA OBRADOVIĆA 8 | Znak fakulteta2 |
| Study Programme AccreditationUNDERGRADUATE ACADEMIC STUDIES: Fruit Science and Viticulture |
| Table 5.2 Course specification |